

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D205-541 REV. J AND INSTRUCTIONS FOR
CONTINUED AIRWORTHINESS ICA-D205-541 REV. 4 OR LATER APPROVED REVISION

REF. TCCA STC: SH96-120
REF. FAA STC: SR00696NY
REF. EASA STC: EASA.IM.R.S.01242

1.0 PURPOSE

The purpose of this DSI is to add the D205-541-051 Quick Release Retrofit Kit, which provides the option to install the D205-541-043/-044/-045/-046 Heli-Utility Basket with a quick release feature for easy removal in the field.

2.0 PROCEDURE

- 2.1 If applicable, remove the D205-541-043/-044/-045/-046 Heli-Utility Basket from the aircraft per ICA-D205-541.
- 2.2 Remove the bolts attaching each D2199-XX Strut to the basket and remove the D2199-XX Struts (Ref. ICA-D205-541, Figure 25-8).
- 2.3 Remove the middle bolt from the D2498 Mounting Lug at STA 84.29 and retain hardware per Figure 3, Detail D. Install 1x MS17984-C510 Pip pin, 1x D2690-6 Lanyard Assembly and 1x NAS1149D0416J Washer using previously retained hardware per Figure 3, Detail D.
- 2.4 Remove the D3052-1 Mounting Lug at STA 129.00 and retain hardware. Install the D5457-1 Mounting lug and 1x MS17984-C413 Pip pin, 1x D2690-6 Lanyard Assembly and 1x NAS1149D0416J Washer using previously retained hardware per Figure 4, Detail G.
- 2.5 Remove the middle bolt from the D2499 Mounting Lug at STA 155.06 and retain hardware per Figure 5, Detail I. Install 1x MS17984-C411 Pip pins, 1x D2690-6 Lanyard Assembly and 1x NAS1149D0416J Washer using previously retained hardware per Figure 5, Detail I.

NOTE: Although not generally necessary, it is acceptable to use longer or shorter AN4 and AN5 bolts to ensure 1.5 threads in safety on the nuts. Additional NAS1149D0416J Washers may also be installed.

- 2.6 At STA 84.29, attach the D5407-041 Strut Assembly to the airframe per Figure 6, Detail E.
- 2.7 At STA 129.00, attach the D5407-043 Strut Assembly to the airframe per Figure 6, Detail H.
- 2.8 At STA 155.06, attach the D5407-045 Strut Assembly to the airframe per Figure 6, Detail H.
- 2.9 Attach the D2498/D2499 Mounting Lugs to the airframe per Figure 3, Detail D and Figure 5, Detail I respectively.
- 2.10 Place 1x D5458-1 on either side of the D5457-1 Mounting Lug per Figure 5, Detail G. Transfer drill $\varnothing 0.257$ " hole through each bushing in line with the hole from the aircraft hardpoint. Deburr and touch up with Alodine 1200/1201 per MIL-C-5541 and paint the hex portion white. Install the D5458-1 Bushings with Proseal 890 or equivalent. Attach the D5457-1 Mounting Lug to the airframe per Figure 5, Detail G.
- 2.11 Attach the D5407-041/-043/-045 Strut Assemblies to the basket per Figure 6, Detail F.
- 2.12 Update aircraft logbook to indicate installation of the D205-541-051 Quick Release Retrofit kit and adjust Weight and Balance record for the aircraft with the Weight and Balance data provided in Section 4.0 of this document.

SUPERCEDED

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 16.06.02
CERT. NO.: SH96-120
ISSUE NO.: 3

APPROVED

A	NEW ISSUE	VS	16.06.02
REV.	DESCRIPTION	BY	DATE
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9747	SHEET 1 OF 8
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	QUICK RELEASE RETROFIT	NTS
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3.0 300 HOUR INSPECTION

Update 300 Hour inspection in ICA-D205-541 to include the following items:

- 3.1 All visible areas of the installation should be checked for mechanical damage (scratches, nicks, wear) and corrosion according to Table 1. Replace parts that have been damaged beyond limits.
- 3.2 Inspect the condition of the hardware for suitability for continued service.

Table 1 - Damage Limits

Location	Type of Damage	Max. Allowable Damage	Repair
D5407-041/-043/-045 Strut Assembly D5457-1 Mounting Lug	Nicks, Scratches, Corrosion	Up to 0.010" (0.25 mm) deep	Acceptable. Polish out to a maximum depth of 0.010" (0.25 mm) using scotchbrite
		Over 0.010" (0.25 mm) deep	None, replace part
	Elongated Holes	Up to 0.025" (0.64 mm) across hole diameter	Acceptable
		Over 0.025" (0.64 mm) across hole diameter	None, replace part
	Cracks/Dents/Bending/Yielding	None	None, replace part

4.0 WEIGHT AND BALANCE

The net weight and balance for the D205-541-051 Quick Release Retrofit kit is shown in the table below:

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D205-541-051 <i>Quick Release Retrofit kit</i>	1.46 lb 0.66 kg	48.50 in 1.23 m	70.8 in-lb 0.81 m-kG	118.80 in 3.02 m	173.4 in-lb 1.99 m-kG

5.0 PARTS LIST

Qty -051	Part Number	Description
X	D205-541-051	QUICK RELEASE RETROFIT
3	D2690-6	LANYARD ASSEMBLY
1	D5407-041	STRUT ASSEMBLY
1	D5407-043	STRUT ASSEMBLY
1	D5407-045	STRUT ASSEMBLY
1	D5457-1	MOUNTING LUG
2	D5458-1	BUSHING
1	MS17984-C411	PIP PIN
1	MS17984-C413	PIP PIN
1	MS17984-C510	PIP PIN
3	NAS1149D0416J	WASHER

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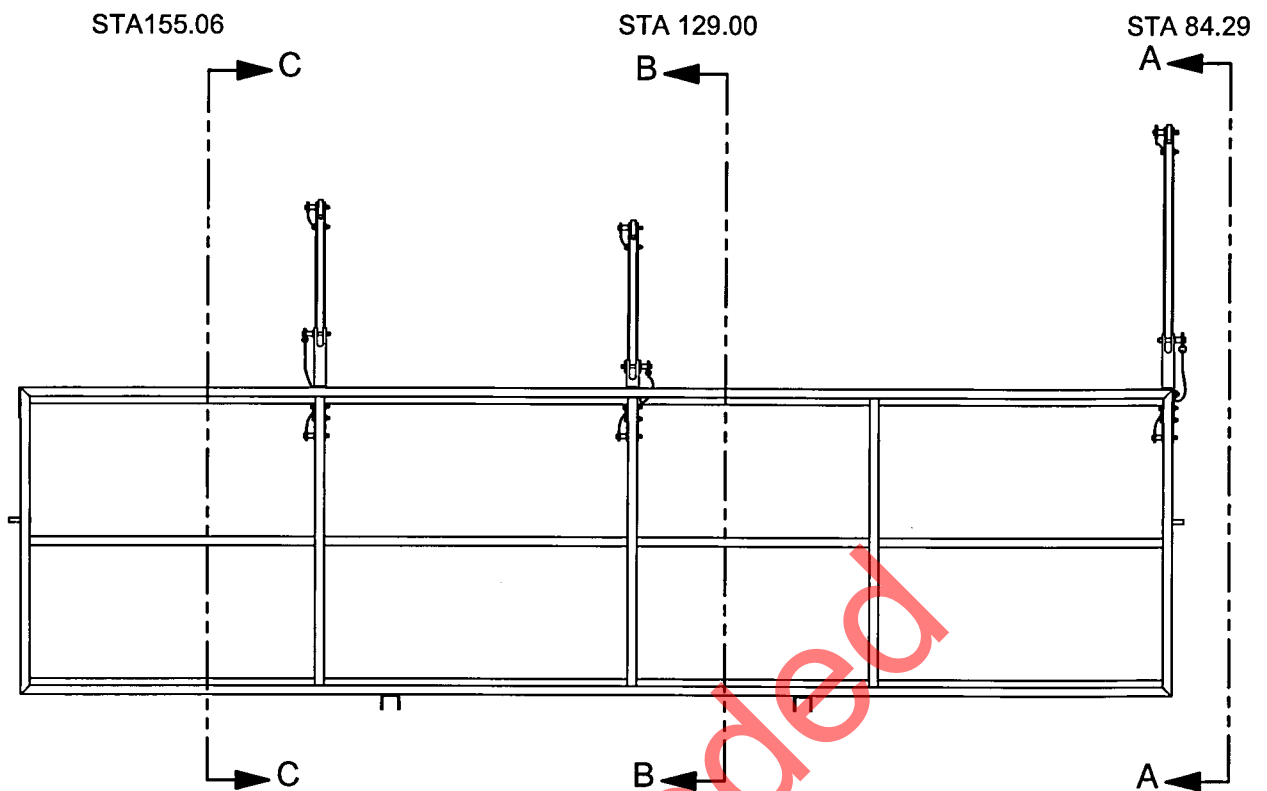


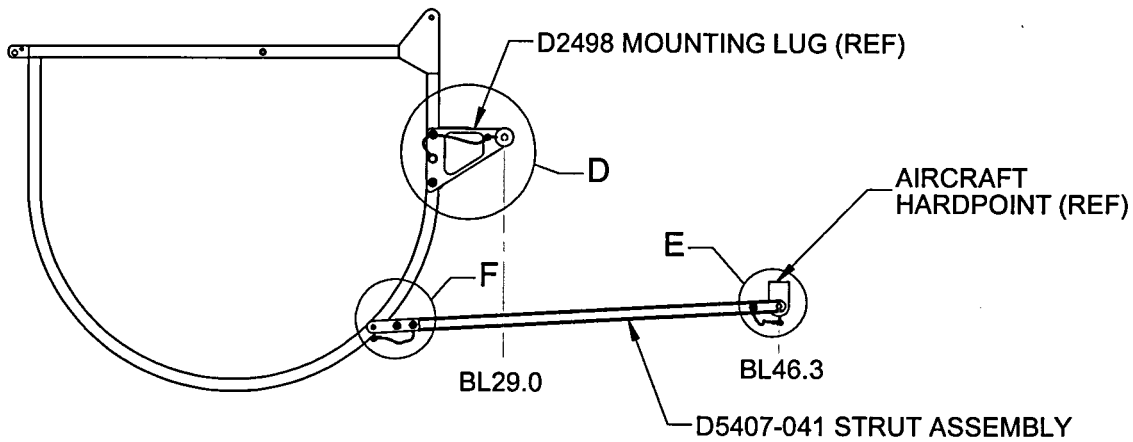
Figure 1 - D205-541-044 Heli-Utility Basket, Top View
 (-046 Similar, -043/-045 Opposite)

Superseded

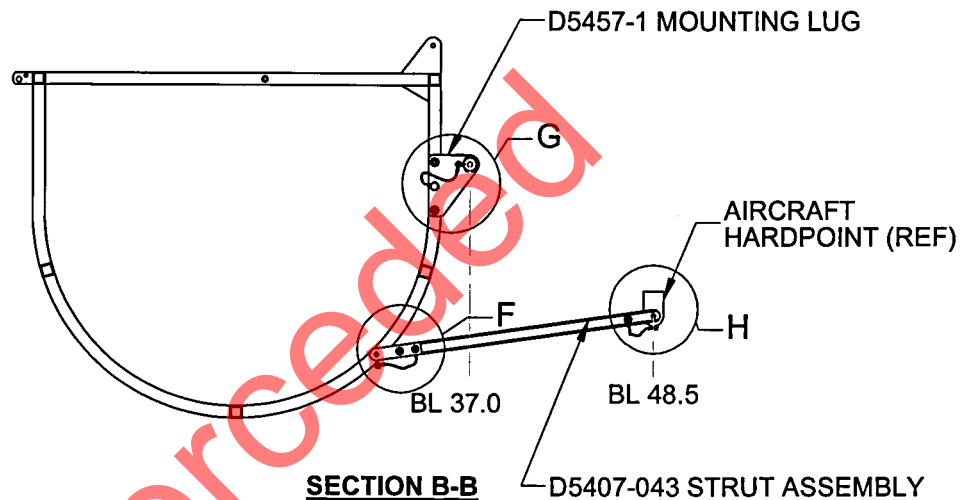
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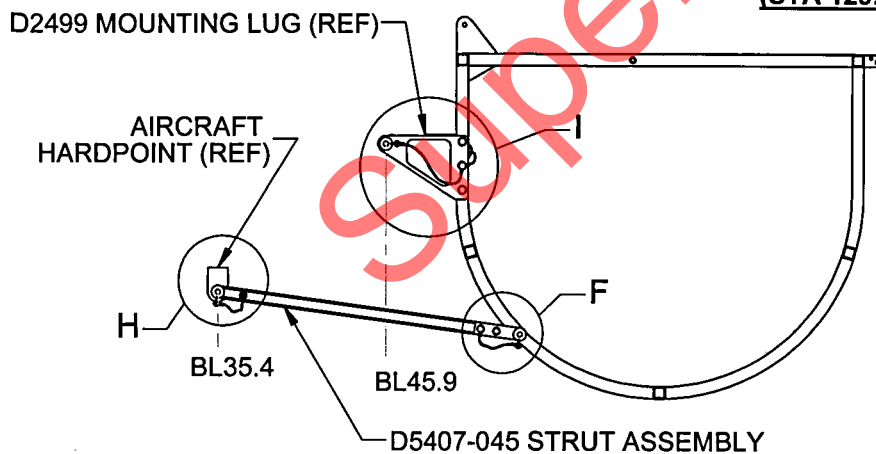
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SECTION A-A
(STA 84.29)



SECTION B-B
(STA 129.00)



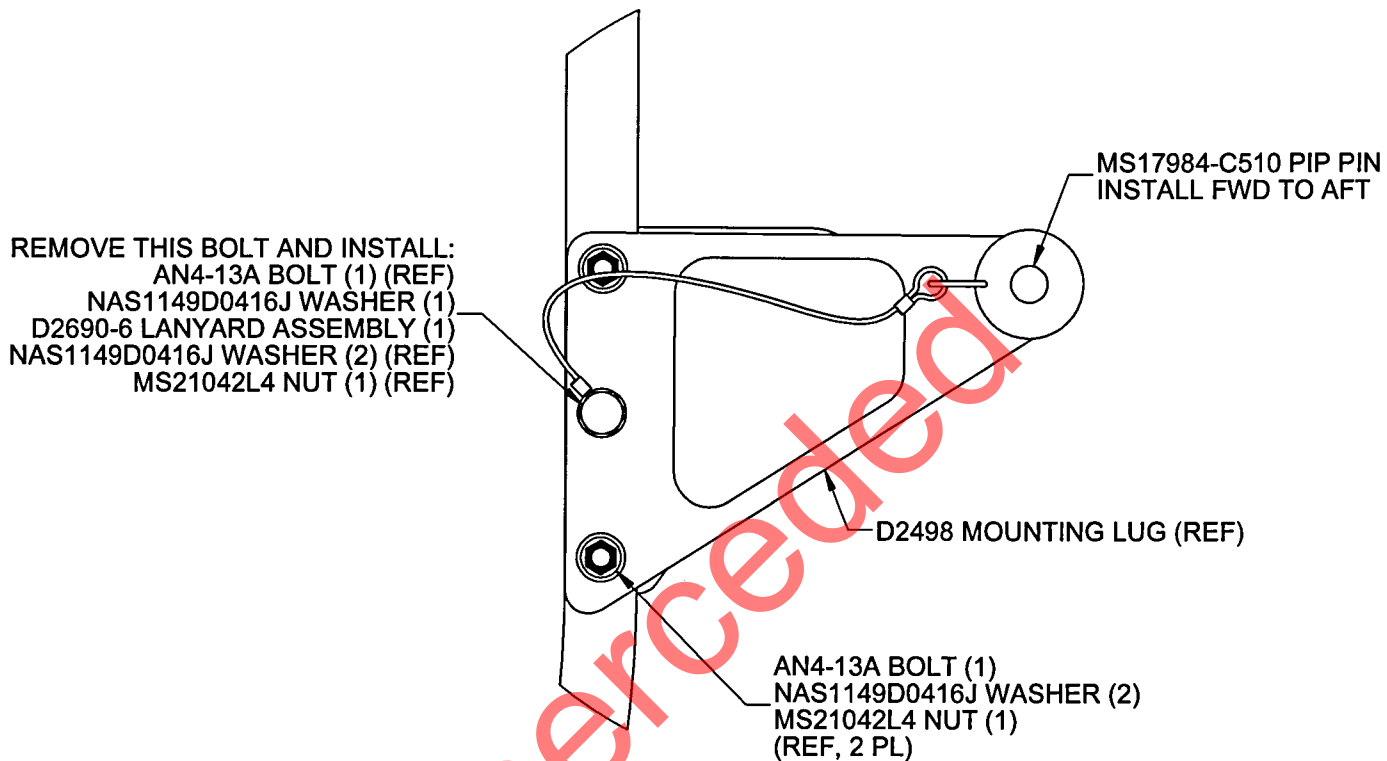
SECTION C-C
(STA 155.06)

Figure 2 - D205-541-044 Heli-Utility Basket
(-046 Similar, -043/-045 Opposite)

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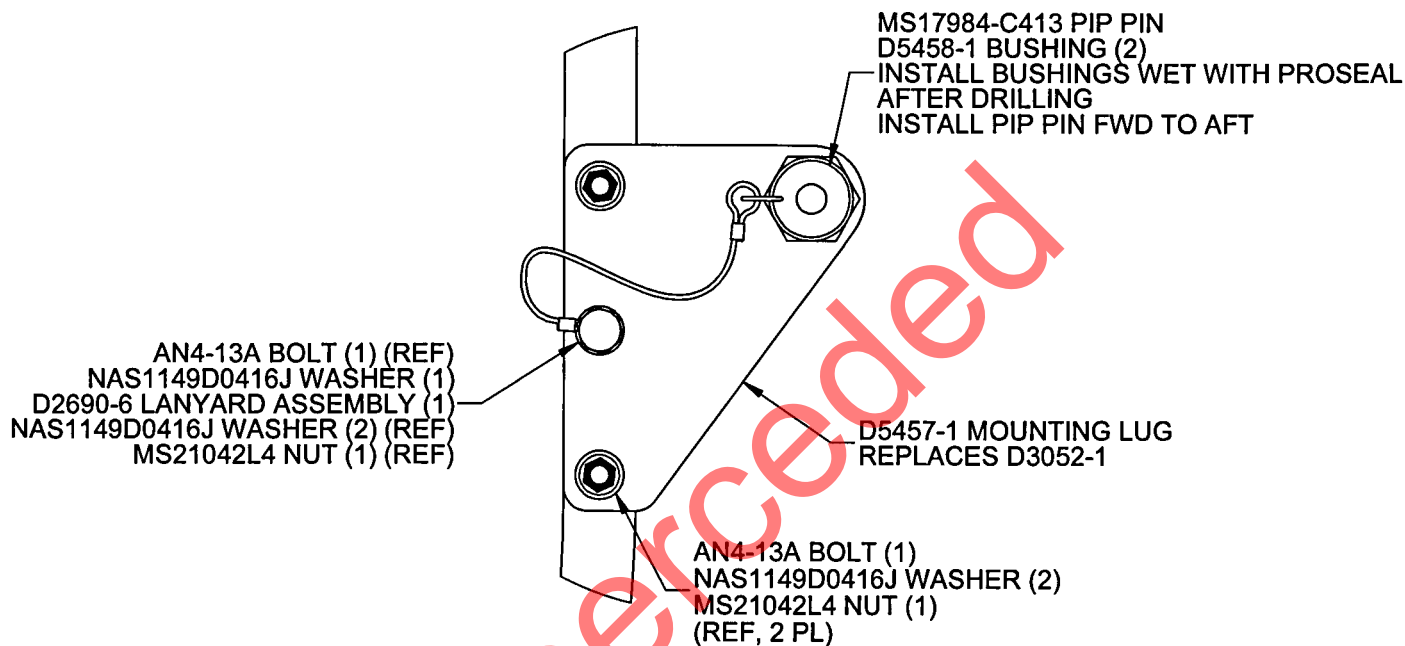
DETAIL D

Figure 3 - D205-541-044 Heli-Utility Basket (STA 84.29)
 (-046 Similar, -043/-045 Opposite)

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DETAIL G

Figure 4 - D205-541-044 Heli-Utility Basket (STA 129.00)
(-046 Similar, -043/-045 Opposite)

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MS17984-C411 PIP PIN
D2515 BUSHING (REF)
INSTALL PIP PIN AFT TO FWD

D2499 MOUNTING LUG (REF)

REMOVE THIS BOLT AND INSTALL:
AN4-13A BOLT (1) (REF)
NAS1149D0416J WASHER (1)
D2690-6 LANYARD ASSEMBLY (1)
NAS1149D0416J WASHER (2) (REF)
MS21042L4 NUT (1) (REF)

AN4-13A BOLT (1)
NAS1149D0416J WASHER (2)
MS21042L4 NUT (1)
(REF, 2 PL)

DETAIL I

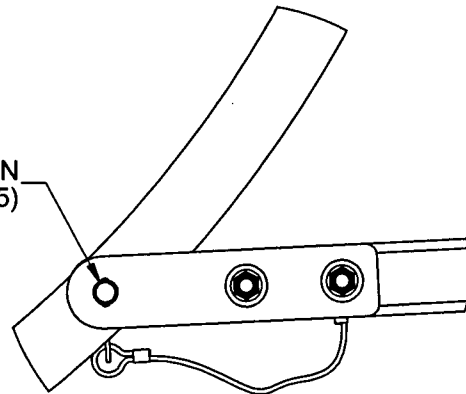
Figure 5 - D205-541-044 Heli-Utility Basket (STA 155.06)
(-046 Similar, -043/-045 Opposite)

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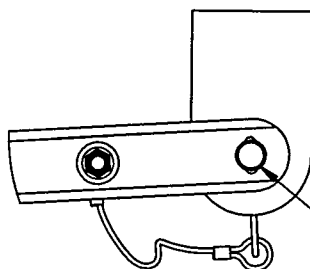
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MS17984-C409 PIP PIN
(PART OF D5407-041/-043/-045)



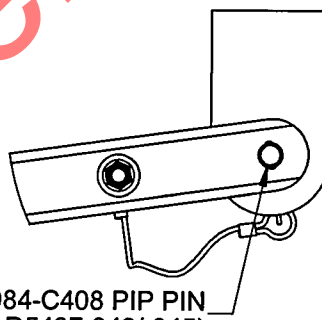
DETAIL F



AIRCRAFT HARDPOINT (REF)
AT STA 84.29

MS17984-C508 PIP PIN
(PART OF D5407-041)

DETAIL E



AIRCRAFT HARDPOINT (REF)
AT STA 129.00/155.06

MS17984-C408 PIP PIN
(PART OF D5407-043/-045)

DETAIL H

Figure 6 - D205-541-044 Heli-Utility Basket
(-046 Similar, -043/-045 Opposite)

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